

Notice of Allowability**Application No.**

09/931,841

Applicant(s)

NADJ ET AL.

Examiner

MARC FILIPCZYK

Art Unit

2158

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/28/07 and 3/25/11.
2. ☒ The allowed claim(s) is/are 5-10 and 22-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 5/27/11.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Marc R Filipczyk/
Primary Examiner, Art Unit 2158

ALLOWANCE

This action is in response to applicant's amendment filed on October 9, 2007 and BPAI decision on March 25, 2011. Claims 5-10 and 22-27 are pending.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jose Nunez on May 27, 2011.

AMENDMENT TO CLAIMS

5. (Currently Amended) A method for scheduling events in a computer processing system, comprising:
identifying queues, each of the queues associated with a corresponding priority, each of the queues including events;
defining a data structure with a root level having a node group, the node group having k number of nodes, each of the k number of nodes sharing a pointer, each of the k number of nodes stored contiguously in memory, wherein the k number is equal to a number of multiple queues;
associating the queues with respective nodes of the data structure;
assigning a value representing the corresponding priority to the respective nodes;
determining a priority between the respective nodes based on respective values representing the corresponding priority to the respective nodes;
selecting one of the events corresponding to a node having a highest priority for transmission to a processing resource; [[and]]

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processing the selected one of the events at the processing resource with a processor prior to remaining events; and
continuing the selecting and the processing for remaining events of the node having the highest priority.

6. (Currently Amended) The method of claim 5, wherein continuing the selecting and the processing further comprising includes:

rescheduling the node having the highest priority after processing the selected node selection.

7. (Currently Amended) The method of claim 6, wherein the method operation of rescheduling the node having the highest priority ~~after selection~~ includes,

determining if the node having the highest priority will be empty after the selecting of the one of the events selection.

8. (Currently Amended) The method of claim 7, wherein continuing the selecting and the processing further comprising includes:

if the node having the highest priority will be empty after the selecting selection, then the method includes,

removing the value representing the corresponding priority from the node having the highest priority.

9. (Currently Amended) The method of claim 7, wherein continuing the selecting and the processing further comprising includes:

if the node having the highest priority will not be empty after the selecting selection, then the method includes,

retaining the value representing the corresponding priority from the node having the highest priority, thereby enabling rescheduling of the node having the highest priority after the selecting selection.

22. (Currently Amended) A non-transitory computer readable medium having program instructions that when executed by a computer implemented method for scheduling events in a computer processing system, said method comprising:

~~program instructions for~~ identifying queues, each of the queues associated with a corresponding priority, each of the queues including events;

~~program instructions for~~ defining a data structure with a root level having a node group, the node group having k number of nodes, each of the k number of nodes sharing a pointer, each of the k number of nodes stored contiguously in memory, wherein the k number is equal to a number of multiple queues;

~~program instructions for~~ associating the queues with respective nodes of the data structure;

~~program instructions for~~ assigning a value representing the corresponding priority to the respective nodes;

~~program instructions for~~ determining a priority between the respective nodes based on respective values representing the corresponding priority to the respective nodes;

~~program instructions for~~ selecting one of the events corresponding to a node having a highest priority for transmission to a processing resource; [[and]]

~~program instructions for~~ processing the selected one of the events at the processing resource with a processor prior to remaining events; and

continuing the selecting and the processing for remaining events of the node having the highest priority.

23. (Currently Amended) The non-transitory computer readable medium of claim 22, wherein continuing the selecting and the processing further comprising includes:
rescheduling the node having the highest priority after processing the selected node selection.

24. (Currently Amended) The non-transitory computer readable medium of claim 23, wherein the ~~program instructions for~~ rescheduling the node having the highest priority ~~after selection~~ includes,
determining if the node having the highest priority will be empty after the selecting of the one of the events selection.

25. (Currently Amended) The non-transitory computer readable medium of claim 24, wherein continuing the selecting and the processing further comprising includes:
if the node having the highest priority will be empty after the selecting selection, then the ~~computer-readable medium method further~~ includes,

~~program instructions for~~ removing the value representing the corresponding priority from the node having the highest priority.

26. (Currently Amended) The non-transitory computer readable medium of claim 24, wherein continuing the selecting and the processing further comprising includes:

if the node having the highest priority will not be empty after the selecting selection, then the ~~computer-readable medium~~ method further includes,

~~program instructions for~~ retaining the value representing the corresponding priority from the node having the highest priority, thereby enabling rescheduling of the node having the highest priority after the selecting selection.

27. (Currently Amended) The non-transitory computer readable medium of claim 22, the method further comprising:

~~program instructions for~~ resolving conflicts between respective nodes assigned a same value by rotating an additional pointer among the respective nodes assigned the same value.

Allowable Subject Matter

Claims 5-10 and 22-27 are allowable over the prior art of record encountered, renumbered as claims 1-12, respectively.

The following is an examiner's statement of reasons for allowance:

Claims 5 and 22 are allowable because the best prior art of record or that encountered in searching for the invention, fails to disclose or suggest associating queues with nodes of a data structure, wherein each node shares a pointer and is stored contiguously in memory, assigning a value representing a corresponding priority to the respective nodes and selecting and processing events of the node having the highest priority, as claimed in addition to the other claim provisions.

Claims 6-10 and 23-27 depend from claims 5 and 22 respectively, and are therefore allowable on the same merits.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents show the state of art in the field of web browsing:

USPN. 6,128,672 USPN. 6,701,324 USPN. 7,406,539

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC FILIPCZYK whose telephone number is (571)272-4019. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali can be reached on 571-272-4105. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MF
May 31, 2011
/Marc R Filipczyk/
Primary Examiner, Art Unit 2158